

PROJECT ADMINISTRATION DATA SHEET

ORIGINAL



REVISION NO. \_\_\_\_\_

Project No. A-54-805

SIX/GIT

DATE 1 / 11/84Project Director: ~~Dr. James Bynum~~ Dr. Helen E. Gruber

School/Unit

Graduate Studies

Sponsor: U. S. Department of Education, Washington, D. C.Type Agreement: Grant No. G008302597Award Period: From 9/1/83 To 8/31/86 (Performance) 11/30/86 (Reports)

Sponsor Amount:

This ChangeTotal to Date

Estimated: \$ \_\_\_\_\_

\$ 200,600 }

See below

Funded: \$ \_\_\_\_\_

\$ 200,600 }Cost Sharing Amount: \$ 19,760 in A-54-315 and.... Cost Sharing No: \$8,645 in A-56-311Title: Cooperative Education Comprehensive Demonstration Program For Post Secondary Students.ADMINISTRATIVE DATAOCA Contact Don S. Hasty x-4820

## 1) Sponsor Technical Contact:

## 2) Sponsor Admin/Contractual Matters:

Mr. Joseph Somerville, Project Officer  
Department of Education  
Division of Institutional & State Incentive  
Programs/Cooperative Education BranchMr. Clifford V. Thompson  
Grants Officer, Office of Post-  
Secondary EducationRoom 3053, ROB #3400 Maryland Avenue, S.W.400 Maryland Avenue, S. W.ROB-3, Room 3125B-055Washington, D. C. 20202Washington, D. C. 20202

Defense Priority Rating: \_\_\_\_\_

Military Security Classification: N/A(or) Company/Industrial Proprietary: N/ARESTRICTIONSSee Attached N/A Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval — Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.

Equipment: Title vests with N/A - No purchase or lease to be allowed.COMMENTS:Above funding is for first two years of three year Grant. Important to note that  
initially, only first year budget supported, second and third years dependent upon  
satisfactory performance as defined, and availability of funds.COPIES TO:Project Director  
Research Administrative Network  
Research Property Management  
AccountingProcurement/EES Supply Services  
Research Security Services  
Reports Coordinator (OCA)  
Research Communications (2)GTRI  
Library  
Project File  
Other: W. Hitch, M. Drew  
T. Newton

SPONSORED PROJECT TERMINATION/CLOSEOUT SHEET

Date 3/18/86

Project No. A-54-805

School/~~XXX~~ Graduate Studies

Includes Subproject No.(s) \_\_\_\_\_

Project Director(s) Dr. Helen E. Grenga

~~GTRC~~ / GIT

Sponsor U. S. Department of Education, Washington, DC

Title Cooperative Education Comprehensive Demonstration Program for  
Post Secondary Students

Effective Completion Date: 8/31/85\* (Performance) 8/31/85\* (Reports)

Grant/Contract Closeout Actions Remaining:

\*Terminates First Two years of a three year grant --

☒ None

☐ Final Invoice or Final Fiscal Report

☐ Closing Documents

☐ Final Report of Inventions

☐ Govt. Property Inventory & Related Certificate

☐ Classified Material Certificate

☐ Other \_\_\_\_\_

Continues Project No. 1

Continued by Project No. A-54-806

COPIES TO:

(Third Year of Grant)

Project Director  
Research Administrative Network  
Research Property Management  
Accounting  
Procurement/GTRI Supply Services  
Research Security Services  
Reports Coordinator (OCA)  
Legal Services

Library  
GTRC  
Research Communications (2)  
Project File  
Other A. Jones

R. Embry

M. Heyser

# Georgia Institute of Technology

A UNIT OF THE UNIVERSITY SYSTEM OF GEORGIA

ATLANTA, GEORGIA 30332

OFFICE OF GRADUATE STUDIES AND RESEARCH  
GRADUATE COOPERATIVE PROGRAM  
(404) 884- 5314

September 20, 1984

TO: U.S. Department of Education  
Office of Higher Education Programs  
Program Support Branch (84.055)  
400 Maryland Ave., S.W.  
Washington, D.C. 20202

FROM: Helen E. Grenga, Director  
Graduate Cooperative Program

REF: E.D. Grant No. G008302597

Attached are the original and two copies of the report for the first year of this grant.

The Financial Status Report form will be sent under separate cover.

DEPARTMENT OF EDUCATION  
WASHINGTON, D.C. 20202

COOPERATIVE EDUCATION PROGRAM  
(Title VIII, the Higher Education Act of 1965, as amended)

PERFORMANCE REPORT

Program Year 1983-84 (FY 1983 Funds)

FORM APPROVED  
O.M.B. NO. 1840-0053  
APPROVAL EXPIRES: 1/31/85

GRANT NUMBER

6008302597

BUDGET PERIOD

FROM (month, day & year) TO (month, day & year)

9 1 83 8 31 84

NAME OF GRANTEE  
Georgia Institute of Technology  
Graduate Cooperative Program  
Office of Graduate Studies & Research

ADDRESS (Include number, street, city, State and ZIP code)  
225 North Avenue  
Atlanta, GA 30332

PART I - TO BE COMPLETED BY ADMINISTRATION, DEMONSTRATION, AND EXPLORATION PROJECTS

Your answers to each item in Part I should reflect the activities and accomplishments of your project for the duration of the budget period as entered in the upper right-hand corner of this page)

SECTION A - PLACEMENT AND RELATED DATA

1. NUMBER OF CO-OP STUDENTS WHO WERE PLACED IN PAID JOBS, BY DISCIPLINE/FIELD, DURING THIS BUDGET PERIOD (Include graduate students) (Count students only once; do not count the number of times a student was placed)

DISCIPLINE/FIELD (Use additional sheets, if necessary)	NUMBER OF STUDENTS PLACED	CHECK IF DISCIPLINE/FIELD NEW TO CO-OP THIS BUDGET PERIOD
a. Chemical Engineering	4	X
b. Mechanical Engineering	9	X
c. Mathematics	3	X
d. Electrical Engineering	4	X
e. Management	4	X
f. Industrial Engineering	1	X
g. Civil Engineering	1	X
h. Aerospace Engineering	2	X
i.		
j.		
k.		
l.		
m.		
n.		
TOTAL		

2. NUMBER OF STUDENTS PLACED BY TYPE OF PROJECT CALENDAR  
(TOTAL should equal TOTAL in Item A-1)

a. ALTERNATING  
24

b. PARALLEL  
4

3. NUMBER OF CO-OP STUDENTS PLACED WHO WERE ENROLLED IN GRADUATE OR PROFESSIONAL PROGRAMS  
(Post-baccalaureate) Four enrolled as undergraduates (see attached narrative).

24

4. WERE ALL STUDENTS PLACED IN JOBS RELATED TO THEIR ACADEMIC PROGRAMS OF STUDY OR CAREER OBJECTIVES? (Item A-1) ☒ YES ☐ NO  
(If NO, explain in Section .

5. NUMBER OF EMPLOYERS WHERE STUDENTS WERE PLACED (Firms/organizations)  
(This number may be less than the total number of employers with whom the institution has co-op work agreements)

18

**PART I - TO BE COMPLETED BY ADMINISTRATION, DEMONSTRATION, AND EXPLORATION PROJECTS (Continued)**

**SECTION B - PROJECT RETENTION AND CAREER CHANGES**

1. NUMBER OF CO-OP STUDENTS WHO WERE GRADUATED FROM YOUR INSTITUTION DURING THIS BUDGET PERIOD (Include those placed in current or previous budget period)	0
2. NUMBER OF CO-OP STUDENTS WHO, FOR REASONS RELATED TO THE NATURE OF THE COOPERATIVE EDUCATION PROGRAM, DROPPED OUT OF THE CO-OP PROJECT AFTER RECEIVING AT LEAST ONE CO-OP WORK ASSIGNMENT	1
3. NUMBER OF CO-OP STUDENTS WHO CHANGED THEIR CAREER PLANS AS A RESULT OF THEIR CO-OP WORK EXPERIENCES	0

**SECTION C - STUDENT CHARACTERISTICS (For TOTAL number of students placed in Section A-1)**

1. ETHNO RACIAL BACKGROUND	NO. OF STUDENTS	2. SEX	NO. OF STUDENTS
American Indian/Alaskan Native		Male	24
Asian/Pacific Islander		Female	4
Black (other than Hispanic)		<b>TOTAL</b> (must = TOTAL in Item A-1)	28
Hispanic	2		
White (other than Hispanic)	26		
<b>TOTAL (must = TOTAL in Item A-1)</b>	28		

**SECTION D - NARRATIVE**

Provide a brief written comparison of the project objectives and project activities as proposed in your approved grant application for this budget period with the level of accomplishment attained. If a planned objective or activity was not attained or conducted, explain why and what, if any, corrective measures were taken. Be sure to include in your comparison the degree and extent of top-line administrative commitment, including immediate and long-range financial

support, and the role of the faculty in developing or participating in the project. You may also explain in this narrative answers to any other questions in Part I (reference the item number). For multi-year grants the final narrative statement should also summarize all budget years. Attach a copy of your external evaluation report if an evaluation was conducted during the year.

**PART II - TO BE COMPLETED BY TRAINING PROJECTS**

**SECTION A - TRAINING SESSIONS CONDUCTED THIS BUDGET PERIOD**

(Use additional sheet, if necessary)

PRIMARY PURPOSE OF EACH TRAINING SESSION (e.g., Program Administration-General; Top-line Administrators; Evaluation: Graduate Education; etc.)	NUMBER OF TRAINERS/ PANELISTS AND TRAINEES ATTENDING		LOCATION OF TRAINING SESSION (City and State)
	TRAINERS/ PANELISTS	TRAINEES	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
<b>TOTAL</b>			

PERFORMANCE REPORT  
September 1, 1984 - August 31, 1984  
E.D. Grant Number G008302597  
Georgia Institute of Technology  
Graduate Cooperative Program

Section A.3.

The Graduate Co-op Program at Georgia Tech has 2 plans, one for graduate students only and the other for students who have completed their junior year and plan to continue after graduation for a graduate degree (see brochure for details). Thus, 24 graduate co-op students were enrolled in graduate programs and 4 were enrolled as undergraduates.

Section D. Narrative

I. Project Accomplishments During First Budget Period

Project objectives and activities, as given in the grant application, with the level of accomplishment attained are as follows:

- A. Emphasize external program development and develop graduate level co-op positions.
  1. Information about the graduate cooperative program and an invitation to participate has been sent to approximately 600 business, industrial and governmental organizations. Contacts for these organizations were obtained from the Placement Center, the undergraduate Cooperative Division, faculty and staff members and various other sources. Numerous telephone calls and written responses were received. Seventy-three of these organizations have thus far responded that they are ready to participate in the program. Many others have expressed interest in participation at a future date. Employer Information pamphlets (copy attached) have been widely distributed also through other campus offices - academic units, Placement Center, undergraduate Cooperative Division, etc. Thus far, approximately 2250 Employer Information pamphlets have been distributed.
  2. An average of at least 15 company personnel or technical managers have been visited or have visited the Graduate Co-op Program Director each quarter. Visits to the companies have helped the Program Director understand the company objectives and the potential utilization of graduate co-op students while also providing the opportunity to promote company participation in the graduate cooperative program. Visits to the campus by company representatives have helped promote the program not only through discussions with the Program Director, but perhaps more importantly through discussions with faculty members in the participating schools.

- B. Promote cooperative education to both graduate and undergraduate students at Georgia Tech:
1. The Graduate Cooperative Program has been widely advertised to Georgia Tech students. Articles about the program have appeared in the school newspaper and in the undergraduate cooperative students' publication as well as in the alumni newspaper. Advertisements for the program have been placed in the school newspaper for about three weeks at the beginning of each quarter. The student response to these efforts was good during winter and spring quarters, but poor during the summer quarter. A number of inquiries have also come from alumni and some have indicated plans to return for a graduate degree under the co-op program.
  2. Brochures and posters with program information for students were prepared and widely distributed through the Graduate Co-op Office, academic units, the Graduate Office and the Cooperative Division. A copy of the brochure is attached. These have also been sent to numerous students and potential students who have inquired about the program. Thus far, approximately 2500 brochures and 650 posters have been distributed.
  3. The Graduate Co-op Office Staff has had numerous telephone conversations and office visits with students interested in the Graduate Co-op Program. The Program Director has also spoken to student groups about the program. In addition, faculty members have discussed the program with both individual students and student groups.
- C. Involve faculty at a high level of participation.
1. The Vice-President for Academic Affairs, the Associate Vice-President for Graduate Studies and Research and the academic Deans have been kept regularly informed during the year about the status and progress of the Graduate Cooperative Program. They have been very interested in and supportive of the program. The Graduate Co-op Director has also attended several School Director and other administrative meetings during the year to discuss the program.
  2. The Graduate Co-op Director regularly attends meetings of the Graduate Coordinators and of the Graduate Committee and periodically reports on the status of the Graduate Cooperative Program. The Graduate Coordinators are faculty representatives from all of the degree granting units and typically are involved in recruiting, admissions, advisement, and financial support of graduate students. Dialogue with this group has established two-way communications that have benefited program development. The Graduate Committee is the committee of the Academic Senate that has the responsibility of recommending policies concerning admissions requirements, performance standards, degree requirements, and other academic criteria concerning graduate students, as well as the responsibility of acting on graduate student petitions. The original policy establishing the Graduate Cooperative Program was recommended to the Academic Senate by this committee and any changes or additions to this policy would involve this committee.

The Graduate Cooperative Program also has a Steering Committee which is responsible for overall academic coordination of the program, definition of liaison structures with participating companies and general policy development. The Steering Committee is chaired by the Graduate Co-op Director, and currently consists of ten faculty members, representing all four colleges of the Institute. Members of the committee currently include the Chairman of the Graduate Committee, seven graduate coordinators and two school directors.

3. The graduate coordinators are generally provided release time to perform their duties concerning recruitment, admissions and advisement of graduate students, including graduate co-op students. The student's application for the Graduate Cooperative Program is sent to the graduate coordinator for approval to participate in the program. The study-work schedule must also be approved by the graduate coordinator prior to the student reporting to work, in order to ensure that the student can meet degree requirements with the proposed schedule.
4. A reward system for faculty participation that has been developed is credit in the Corporate Liaison Program. One of the corporate benefits of this program, which was established several years ago, is interaction with the faculty in areas of special interest to the company. Faculty who participate are credited for the time they spend with company representatives. A pro-rated part of the company dues are then set aside for use by that faculty member for research, equipment, supplies or other academic support areas, excluding salary supplement. Faculty participation in relation to the Graduate Cooperative Programs has been designated as eligible interaction for credit in this program.

D. Provide career counselling for students.

1. The application for the Graduate Cooperative Program is a slightly modified version of the Placement Center resume form. Students are advised and assisted in completing the form. This is a learning experience for many of the students. After the student is admitted to the program, the Graduate Co-op Director and the student discuss the student's work interests and identify companies of interest to the student. The students' resume and a transcript are then sent to one or more of these. If there are no current participating companies for the student's special area of interest, the student and appropriate faculty are asked to suggest companies and contacts, if possible, who are then contacted by the Graduate Co-op Director to develop participation by that company.
2. A library of information concerning participating companies, including job descriptions, has been established in the Graduate Co-op Office. This library and the larger Placement Center library are both used by the students to help clarify their career interests as well as to identify companies and/or specific jobs of interest.



E. Stress academic enrichment and achievement.

The Graduate Cooperative Program is designed purposefully to incorporate maximum flexibility in order for the faculty and students to use it for maximum benefit with respect to the academic programs while at the same time offering companies a variety of ways to participate in the educational process through this program.

Some companies, students and academic units wish only to participate for the industrial experience gained by graduate co-op students. In this case, the program is similar to the traditional undergraduate program, providing all three participants with interactions that enrich the student's academic program. These students also enhance the graduate classroom experience of non co-op students in the same way that undergraduate co-op students contribute practical experiences to undergraduate classes.

The Graduate Cooperative Program can be used to obtain academic credit if the student does some or all of the thesis research or special problem assignment at work. Four of our current graduate co-op students are doing thesis research at work and several are doing special problems or required internships through this program. In these cases, faculty members are directly involved with the company supervisor of these students.

Another model of the Graduate Cooperative Program is that in which a company sponsors a research grant on which the graduate co-op student is a research assistant performing thesis research at school; the student then spends work periods with the sponsoring company to become more involved in and knowledgeable about the application of this research. Two of our graduate co-op students are working at a company under this plan now and several negotiations are currently underway for additional cooperative research agreements of this type.

F. Ensure Growth of the Graduate Co-op Program

1. Seventy-three employers have requested participation in the Graduate Cooperative Program. More than fifty additional employers have indicated interest and are still considering their potential participation.
2. Twenty-eight students have been placed through the Graduate Cooperative Program since the office was established in December, 1983. Since the estimate of student participation for the first year was considerably higher, this topic is further discussed in the next section on objectives not met.

Current Status of Applications, Admissions, and Placement of Students in the Graduate Cooperative Program

Number of applicants:	81
Number accepted:	77
Number placed to date:	28
Number active for placement:	25
Number inactive without placement:	24
Reason inactive:	
Accepted assistantship:	3
Accepted non co-op job:	2
Low grade point average:	2
* Pending school action:	9
Reason unknown:	7

\*One of the schools (Information and Computer Science) has not yet approved participation for their students in the Graduate Co-op Program. It is anticipated that they will do so this fall.

II. Grant Proposal Objectives Not Attained During First Year and Additional Plans for the Second Year

Initial development of the program has been with individual companies and contacts due to the specialized nature of graduate level positions. Therefore, employer miniconferences have not been held as proposed.

The Graduate Co-op Brochure has not been sent individually to all graduate students yet. This activity is planned for Fall Quarter of this year.

No formal workshop for faculty was held in conjunction with the Southeastern Training Center for Cooperative Education. It was believed that this would not be effective at this time, but rather that the smaller group and individual interactions with faculty, which have been pursued, would be more effective.

The most critical objective not met during the first year is the number of student participants. While it had been estimated that 200 new students would be placed through this program during the first year, only 28 were actually placed. There are several contributing reasons for this:

1. The Graduate Co-op Program Director and Secretary came on board on December 1, 1983; thus, significant program promotion activities began about three months late.
2. The original estimate for such a new program was unrealistic. The concept of cooperative education at the graduate level is new to most companies and students. Due to the different nature of the graduate and undergraduate co-op programs, companies that employ undergraduate co-ops must make special arrangements to accomodate the more flexible schedule and the more specialized interests of graduate students. At least 12 additional students would have been placed if the companies had been ready earlier and their offers had been more timely.
3. At the graduate level, individualized matching of students with company positions is usually required. Companies are not only interested in a specific discipline, e.g. electrical engineering, but

are also interested in students with specific specializations, e.g. signal processing. Similarly, most students are very specific in the nature of co-op work for which they are looking. They are not so open to various career paths as are beginning undergraduate co-op students. Thus, a very specific matching of student and company must usually occur for graduate co-op positions.

4. Geographic restrictions are a problem in some cases, e.g. married students, students with a housing lease, etc.

It is apparent from the first year's results that a major limitation on graduate co-op programs is the interest and availability of students. Part of this will be overcome as more students return from successful co-op work quarters and discuss their experiences with other students.

Eighteen students will return this fall from the summer co-op work quarter. We plan to have a meeting with these students to discuss the program, its successes and shortcomings, how to improve the program and how to more effectively advertise it to other students.

The Graduate Co-op Program Director is also scheduled to speak about the program to Georgia Tech seniors at the Placement Center orientation programs during the second week of Fall Quarter.

Student participation is also directly influenced by faculty participation; thus a strong faculty involvement is mandatory to the success of the program. A number of faculty are already involved and have been very supportive of the program. However, a more formal participation is desirable. Therefore, we have made plans to decentralize the assistant project manager/job developer's position and have four or five faculty job developers at approximately 25% time each for the program (note: approval to do this was recently obtained from the Department of Education). At this time, faculty job developers have been identified in chemical engineering, civil engineering, applied mathematics and management.

The duties of these faculty job developers will be as follows:

- (a) to assist in the development of graduate co-op opportunities by contacting and visiting potential business, governmental and industrial sites,
- (b) to develop with these companies graduate co-op opportunities that relate to the students' theses or may be used for all or part of the students' theses,
- (c) to recruit and identify students for these positions, and,
- (d) to encourage other faculty participation and to assist them in their efforts.

Thus a strong marketing campaign to the students is planned beginning this fall quarter, which should help us to realize the much higher potential numbers that exist for graduate co-op students.



DESIGNING TOMORROW TODAY

**Georgia Institute of Technology**

Graduate Studies and Research  
Atlanta, Georgia 30332  
(404) 894-3090

September 20, 1985

U.S. Department of Education  
Office of Higher Education Programs  
Program Support Branch (84.055)  
400 Maryland Ave., S.W.  
Washington, D.C. 20202

Ref: E.D. Grant No. G008302597

Dear Sir:

Attached are the original and two copies of the report for the second year of this grant.

The Financial Status Report form will be sent under separate cover.

Sincerely,

Helen E. Grenga  
Director  
Graduate Co-Op Program

DEPARTMENT OF EDUCATION  
WASHINGTON, D.C. 20202

COOPERATIVE EDUCATION PROGRAM  
(Title VIII, the Higher Education Act of 1965, as amended)

PERFORMANCE REPORT

Program Year 1984-85 (FY 1984 Funds)

FORM APPROVED  
O.M.S. NO. 1840-0053  
APPROVAL EXPIRES: 3/31/88

GRANT NUMBER

GOO 8302597

BUDGET PERIOD

FROM (month, day & year) TO (month, day & year)

9 1 84 8 31 85

NAME OF GRANTEE  
Georgia Institute of Technology  
Graduate Cooperative Program  
Graduate Studies and Research

ADDRESS (include number, street, city, State and ZIP code)  
225 North Avenue  
Atlanta, GA 30332

PART I - TO BE COMPLETED BY ADMINISTRATION, DEMONSTRATION, AND EXPLORATION PROJECTS

Your answers to each item in Part I should reflect the activities and accomplishments of your project for the duration of the budget period as entered in the upper right-hand corner of this page)

SECTION A - PLACEMENT AND RELATED DATA

1. NUMBER OF CO-OP STUDENTS WHO WERE PLACED IN PAID JOBS, BY DISCIPLINE/FIELD, DURING THIS BUDGET PERIOD (Include graduate students) (Count students only once; do not count the number of times a student was placed)

DISCIPLINE/FIELD (Use additional sheets, if necessary)	NUMBER OF STUDENTS PLACED	CHECK IF DISCIPLINE/FIELD NEW TO CO-OP THIS BUDGET PERIOD
a. Aerospace Engineering	2	
b. Chemical Engineering	4	
c. Civil Engineering	3	
d. Electrical Engineering	14	
e. Engineering Science and Mechanics	1	X
f. Industrial Engineering	5	
g. Management	5	
h. Mathematics	2	
i. Mechanical Engineering	15	
j. Metallurgy	1	X
k. Nuclear Engineering	1	X
l. Physics	3	X
m. Textile Engineering	1	X
n.		
TOTAL	57	

2. NUMBER OF STUDENTS PLACED BY TYPE OF PROJECT CALENDAR  
(TOTAL should equal TOTAL in Item A-1)

a. ALTERNATING  
56

b. PARALLEL  
1

3. NUMBER OF CO-OP STUDENTS PLACED WHO WERE ENROLLED IN GRADUATE OR PROFESSIONAL PROGRAMS  
(Post-baccalaureate)

40

4. WERE ALL STUDENTS PLACED IN JOBS RELATED TO THEIR ACADEMIC PROGRAMS OF STUDY OR CAREER OBJECTIVES? (Item A-1)

☒ YES ☐ NO

(If NO, explain in Section D)

5. NUMBER OF EMPLOYERS WHERE STUDENTS WERE PLACED (Firms/organizations)  
(This number may be less than the total number of employers with whom the institution has co-op work agreements)

36

**PART I - TO BE COMPLETED BY ADMINISTRATION, DEMONSTRATION, AND EXPLORATION PROJECTS (Continued)**

**SECTION B - PROJECT RETENTION AND CAREER CHANGES**

1. NUMBER OF CO-OP STUDENTS WHO WERE GRADUATED FROM YOUR INSTITUTION DURING THIS BUDGET PERIOD (Include those placed in current or previous budget period)	8
2. NUMBER OF CO-OP STUDENTS WHO, FOR REASONS RELATED TO THE NATURE OF THE COOPERATIVE EDUCATION PROGRAM, DROPPED OUT OF THE CO-OP PROJECT AFTER RECEIVING AT LEAST ONE CO-OP WORK ASSIGNMENT	8
3. NUMBER OF CO-OP STUDENTS WHO CHANGED THEIR CAREER PLANS AS A RESULT OF THEIR CO-OP WORK EXPERIENCES	0

**SECTION C - STUDENT CHARACTERISTICS (For TOTAL number of students placed in Section A-1)**

1. ETHNO-RACIAL BACKGROUND	NO. OF STUDENTS	2. SEX	NO. OF STUDENTS
American Indian/Alaskan Native	0	Male	48
Asian/Pacific Islander	0	Female	9
Black (other than Hispanic)	1	<b>TOTAL</b> (must = TOTAL in Item A-1)	57
Hispanic	3		
White (other than Hispanic)	53		
<b>TOTAL</b> (must = TOTAL in Item A-1)	57		

**SECTION D - NARRATIVE**

Provide a brief written comparison of the project objectives and project activities as proposed in your approved grant application for this budget period with the level of accomplishment attained. If a planned objective or activity was not attained or conducted, explain why and what, if any, corrective measures were taken. Be sure to include in your comparison the degree and extent of top-line administrative commitment, including immediate and long-range financial

support, and the role of the faculty in developing or participating in the project. You may also explain in this narrative answers to any other questions in Part I (reference the item number). For multi-year grants the final narrative statement should also summarize all budget periods. Attach a copy of your external evaluation report if an evaluation was conducted during the year.

**PART II - TO BE COMPLETED BY TRAINING PROJECTS**

**SECTION A - TRAINING SESSIONS CONDUCTED THIS BUDGET PERIOD**

(Use additional sheet, if necessary)

PRIMARY PURPOSE OF EACH TRAINING SESSION (e.g., Program Administration-General; Top-line Administrators; Evaluation; Graduate Education; etc.)	NUMBER OF TRAINERS, PANELISTS AND TRAINEES ATTENDING		LOCATION OF TRAINING SESSION (City and State)
	TRAINERS/ PANELISTS	TRAINEES	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
<b>TOTAL</b>			

**PART II - TO BE COMPLETED BY TRAINING PROJECTS (Continued)**

**SECTION B - NARRATIVE**

1. Provide a brief written comparison of the objectives and activities as proposed in your approved application with the level of accomplishments attained. If objectives or activities were not attained, state the objective or activity and give reasons for changes or slippage. For multi-year grants, the final narrative statement should also summarize all budget periods.

2. Briefly summarize the strengths and weaknesses of each training session conducted and give any recommendations you may have for improving the quality of the training and for meeting the overall training needs of the cooperative education community.

**PART III - TO BE COMPLETED BY RESEARCH PROJECTS**

1. AS PROPOSED FOR THIS BUDGET PERIOD, HAVE THE RESEARCH PROJECT'S PLAN AND OBJECTIVES BEEN ACCOMPLISHED? ☐ YES ☐ NO

**2. NARRATIVE**

a. IF THE RESEARCH HAS BEEN COMPLETED, PROVIDE A BRIEF SUMMARY OF YOUR FINDINGS AND SUBMIT FIVE COPIES OF THE FINAL REPORT.

b. IF YOU ACCOMPLISHED THE OBJECTIVES OF YOUR RESEARCH PLAN FOR THIS BUDGET PERIOD IN ACCORDANCE WITH YOUR GRANT AGREEMENT, BUT THE RESEARCH IS STILL INCOMPLETE, EXPLAIN THE CURRENT STATUS OF THE RESEARCH AND GIVE THE EXPECTED DATE OF COMPLETION. *(Applies to multi-year grantees only)*

c. IF YOUR OBJECTIVES WERE NOT MET, EXPLAIN THE STATUS OF YOUR PROJECT AND THE REASONS WHY THE OBJECTIVES WERE NOT MET. EXPLAIN WHY, GIVE REASONS FOR SLIPPAGES IN THE SCHEDULE, AND PROVIDE A TIMETABLE FOR COMPLETION.

**PART IV - AUTHORIZED SIGNATURE AND DATE**

I CERTIFY that the above information is accurate and complete and that all their terms and conditions of the grant have been satisfactorily completed to the best of my knowledge and belief.

NAME AND TITLE OF AUTHORIZED OFFICIAL *(Type or print)*

DATE

SIGNATURE OF AUTHORIZED OFFICIAL

**FOR ED USE ONLY**

NAME OF REVIEWING OFFICER

☐ APPROVED

☐ DISAPPROVED

DATE

COMMENTS

PERFORMANCE REPORT  
Second Budget Period  
September 1, 1984 - August 31, 1985  
E.D. Grant Number G008302597  
Georgia Institute of Technology  
Graduate Cooperative Program

Section D. Narrative

I. Project Accomplishments During Second Budget Period  
Project objectives and activities, as given in the grant application, with the level of accomplishment attained are as follows:

- A. Emphasize external program development and develop graduate level co-op positions.  
Efforts on this aspect have continued and expanded with faculty assistance during the second year of the project. Some of the highlights for this year are as follows:

1. Graduate Co-op information brochures were sent to 70 new companies. The total number of companies participating in the program now totals 126.
2. A total of 3000 company information brochures were distributed by mail, through the placement center, at company visits and other means.
3. Faculty job developers visited 30 companies across the country, including the following:  
Westinghouse Research & Dev. Center, Pittsburgh  
AT&T-IS, New Jersey  
Bell Laboratories, New Jersey  
IBM, San Francisco  
Tektronix, Beaverton, OR  
Signetics, Sunnyvale, CA  
Pacific Gas & Electric, San Francisco  
Hewlett Packard, Palo Alto, CA  
IBM, San Jose, CA  
Hughes Aircraft, El Segundo, CA  
Otis Corporation, Farmington, CT  
Crawford & Russell, Stanford, CT  
Georgia Pacific, Darien, CT  
GTE Corporation, Stanford, CT  
Olin Corporation, Stanford, CT  
Vector Cable Company, Sugar Land, TX  
Johnson Space Center, Houston, TX  
SI Handling, Easton, PA  
Stanley/Vidmar, Allentown, PA  
Boeing Vertol, Philadelphia, PA  
Colgate-Palmolive, Piscataway, NJ  
IBM East Fishkill, Hopewell Junction, NY  
IBM Endicott, NY  
IBM T.J. Watson Res. Center, Yorktown Heights, NY  
Unimation Division of Westinghouse, Danbury, CT



Milliken and Co., Marietta, SC  
Dow Chemical, Midland, MI  
Institute of Paper Chemistry, Appleton, WI  
Sperry Flight Controls, Albuquerque, NM  
Hughes Helicopters, Inc., Phoenix, AZ

Numerous other Atlanta area companies were visited by faculty job developers and/or Co-op Director.

Company visits by faculty are especially important at graduate co-op level, since students tend to specialize at this level and are particularly interested in work directly related to their specialization. This also promotes interest by the faculty members who are crucial to recruiting students for the positions. While the number of students in the program is growing slowly, the interest and support of the faculty is evident, so that the program will continue to grow and will eventually be a significant part of graduate education at Georgia Tech.

- B. Promote cooperative education to both graduate and undergraduate students at Georgia Tech.

The Graduate Co-op Program is widely advertised to Georgia Tech students. Articles about the program continue to appear in the various publications of the Institute, including quarterly advertisements in the school newspaper and progress reports in the undergraduate co-op newsletters.

Brochures and posters with program information continue to be widely distributed through schools and companies and in response to program inquiries. Approximately 3500 brochures and 325 posters have been distributed this year.

Faculty members and the Co-op Program Director have spoken to a number of student groups about the program this year. The Director informed all Georgia Tech seniors about the program at the Placement Center Job Orientation program for seniors. She is also on the orientation program for new graduate students to be held this Fall.

One of the problems, early identification of students to the co-op program, should be largely alleviated with the new graduate admissions application forms that have a section for students to indicate their interest in this program.

- C. Involve faculty at a high level of participation.

The Graduate Co-op Director regularly attends meetings of the Graduate Coordinators and of the Graduate Committee and periodically reports on the status of the Graduate Co-op Program.

The Graduate Coordinators are faculty representatives from all of the degree granting units and typically are involved in recruitment,

admissions, advisement and financial support of graduate students. The Graduate Co-op Program office requires that student applications for the program and study-work schedules are approved by the graduate coordinator of the student's school. Graduate Co-op job descriptions are also sent to Graduate Coordinators for posting.

The Graduate Committee is the committee of the Academic Senate which has the responsibility of recommending policies concerning requirements for admissions, performance, and other academic criteria concerning graduate students. The original policy establishing the Graduate Co-op Program was recommended by this committee to the Academic Senate and any changes in the program policy would involve this committee.

A major modification to the program during the second budget period was the approved decentralization of the Assistant Project Manager/Job Developer position as a method of increasing formal faculty involvement in the program.

The responsibilities of the faculty job developers include:

- a. assisting in the development of graduate co-op opportunities by contacting and visiting potential companies,
- b. developing, as appropriate, graduate co-op opportunities that relate to student theses,
- c. recruiting and identifying students for these positions, and
- d. encouraging other faculty participation and assisting them with their efforts.

The appointed faculty job developers have been extremely helpful in all of these areas and will continue in these positions during the third budget period. These faculty and their disciplines are as follows:

Dr. Pradeep Agrawal, Chemical Engineering  
Ms. Gale Chameides, Management  
Dr. Stephen Dickerson, Mechanical Engineering  
Dr. Nancy Griffeth, Information & Computer Science  
Dr. Miroslav Marek, Materials Engineering  
Dr. Peter Parsonson, Civil Engineering

D. Provide career counselling for students.

The application for the Graduate Cooperative Program is a slightly modified version of the Placement Center resume form. Students are advised and assisted in completing the form. This is a learning experience for many of the students. After the student is admitted to the program, the Graduate Co-op Director and the student discuss the student's work interests and identify companies of interest to the student. The students' resume and a transcript

are then sent to one or more of these. If there are no current participating companies for the student's special area of interest, the student and appropriate faculty are asked to suggest companies and contacts, if possible, who are then contacted by the Graduate Co-op Director to develop participation by that company.

A library of information concerning participating companies, including job descriptions, has been established in the Graduate Co-op Office. This library and the larger Placement Center library are both used by the students to help clarify their career interests as well as to identify companies and/or specific jobs of interest.

E. Stress academic enrichment and achievement.

The Graduate Cooperative Program is designed purposefully to incorporate maximum flexibility in order for the faculty and students to use it for maximum benefit with respect to the academic programs while at the same time offering companies a variety of ways to participate in the educational process through this program.

Some companies, students and academic units wish only to participate for the industrial experience gained by graduate co-op students. In this case, the program is similar to the traditional undergraduate program, providing all three participants with interactions that enrich the student's academic program. These students also enhance the graduate classroom experience of non co-op students in the same way that undergraduate co-op students contribute practical experiences to undergraduate classes.

The Graduate Cooperative Program can be used to obtain academic credit if the student does some or all of the thesis research or special problem assignment at work. Five of our current graduate co-op students are doing thesis research at work and several are doing special problems or required internships through this program. In these cases, faculty members are directly involved with the company supervisor of these students.

Another model of the Graduate Cooperative Program is that in which a company sponsors a research grant on which the graduate co-op student is a research assistant performing thesis research at school; the student then spends work periods with the sponsoring company to become more involved in and knowledgeable about the application of this research. Two of our graduate co-op students are working at a company under this plan now and several negotiations are currently underway for additional cooperative research agreements of this type.

F. Ensure growth of the Graduate Co-op Program

During the first year, 73 companies were on the participation list. During the second year, ten of these dropped out (or notified us that they were having to delay their participation) and 63 additional companies requested participation for a total of 126 currently active companies for potential co-op student placement.

Eighty five students have been placed in the program since the beginning in December, 1983 (28 during the first year and 57 during the second year.

The statistics for the second budget period concerning applications, admissions and placement of students in the program are as follows:

Number of applicants	131
Number accepted	121
Number placed	57
Number active for future placement	27

G. Administrative Commitment

1. The Vice President for Research, Vice President for Academic Affairs and Associate Vice President for Graduate Studies and Research are kept informed about the status and progress of the Graduate Cooperative Program. They are all interested in and supportive of the program. The Graduate Co-op program Director attends several cabinet meetings of the Vice Presidents during the year. A word processing network system and personal computer have been recently obtained with Institute funds for the Graduate Co-op office. This will greatly facilitate program administration in many areas, including matching companies with student interests, tracking student academic progress, printing student labels to send co-op information, recording student work periods, and obtaining statistical data.

II. Grant Proposal Objectives Not Attained During First Year and Additional Plans for the Third Year

The only significant objective not met has been in the number of student placements. As reported last year, there are several reasons for this:

The original estimates for the program were not realistic in view of the differences in graduate and undergraduate co-op programs. The more specialized interests on the part of both employers and students require more individualized matching. Less frequent course offerings at the graduate level necessitate a flexible study/work schedule rather than a strictly alternating quarter schedule. Some students, due to being married or having a housing lease, are restricted in location.

None of these problems are insurmountable, but they require time to resolve, and simply extend the time required to reach program goals in terms of numbers of students participating.

Thus far, each quarter the number of students on co-op work assignments has been at least twice as many as for the same quarter during the previous year. Also, twice as many students were placed during the second year as were in the first. While 57 students were placed during the second year, 70 students actually worked one or more quarters during the second year (due to continuations from the first year). At this rate, it will take an additional three to five years for the program to meet our goals with respect to the number of students. A goal of 750 students in the Graduate Co-op Program is included in the Institute's Long Range program and financial plans.